

# 8

## Classroom Examples of the Learning-Team Model

from CONTROL  
THEORY  
Classroom

Now let's look at the work of four teachers all committed to the use of the learning-team model. Used properly, I believe that this model is the most powerful classroom teaching tool there is. Still, I don't want to imply that this is all a teacher should do. For example, students enjoy informative and well-prepared lectures, and at times these are the most efficient way to get information to the whole class. Although it is not used enough, engaging the whole class in an intellectual discussion especially just before and after a team assignment is one of the best ways to find out how to improve the assignment. And although it has many flaws if it is the only approach you use, there are times when the material is best covered in the traditional way by students working as individuals at their desks.

As Chapter 7 contends, you are the manager and you set the work assignments, but a good manager is continually innovative as he attempts to improve how work is approached. Based on the experience of many teachers, all of whom were effective before they became involved with learning-teams, as you become comfortable with this model you will use it more and more. What is so attractive about it is that, unlike the traditional model which has little room for variation, this approach lends itself readily to new ways to approach any subject. As you will see in these examples, students obviously appreciate a change of approach and are willing to work hard to encourage teachers to continue to be innovative. Think how much

more enjoyable your teaching would be if you could depend upon your students to work as hard as the students do in these examples.

Already being used by thousands of teachers all across North America, the learning-team model has been proved effective by over ten years of extensive research. The teachers whose work is described in this chapter follow procedures developed at the Cooperative Learning Center of the University of Minnesota by David W. Johnson, Roger T. Johnson (with the help of many others, especially Patricia Roy) and Edythe Johnson Holubec. The best description of what they teach is in their 1984 book, *Circles of Learning*.<sup>1</sup> This short book explains how teachers can organize their classes into cooperative learning-teams and teach these teams in a way that is highly motivating to all involved. It covers all the concerns of those new to these ideas and I strongly suggest that this book be studied carefully by anyone who wants to begin using this model.

While I am most familiar with the University of Minnesota group, they are not the only people who advocate and teach the learning-team model. Much important work is being done at the Center for Social Organization of Schools, Johns Hopkins University, under the direction of Robert Slavin, and at the University of California at Riverside by Spencer Kagan. Slavin has published some excellent material, especially his booklet, *Using Student Team Learning*,<sup>2</sup> that gives many specific suggestions for getting started. He has also summarized the supporting research and has done some innovative work on how the learning-teams may compete with each other, an aspect of this model much less emphasized by the Minnesota group. There are enough others trained by one or more of the people mentioned above who are expert enough in this approach so that anyone who made any effort at all could find them. I am sure any of these people would be willing to consult with any school or school system that wanted some help in getting started.

While there is some natural variation between various

models, ~~they all follow the same basic structure: students completing their assignments while working on cooperative learning-teams.~~ As long as you use this structure, it is not necessary that you follow *exactly* what any of these people, or anyone else who uses this approach, advocates. Take what makes sense to you, continually check your approach against the eight criteria given in Chapter 6 and make sure that you act as a manager, not a worker, as set out in Chapter 7. Try to keep in mind the control theory that supports the model so that you can assess whether your assignments and instructions to the learning-teams are need satisfying.



David Johnson has sent me the classroom examples in this chapter. They will show how involving and powerful learning-teams are when they are put into practice by a teacher who is comfortable in their use. These examples show students involved in learning situations of much greater depth and complexity than what is ordinarily found in traditional classes, but for experienced learning-teams, work at this level is far from unusual. If you make an individual effort to learn how to do this or are fortunate enough to teach in a school or school system which offers some training along with a lot of support, you should find that assignments like these become as much a part of your teaching as they are for the four teachers whose work we will now examine. If you wish to contact any of these teachers, their full addresses are given in the notes for this chapter.<sup>3</sup>

### **ROY SMITH**

In Central Junior High School, Hingham, Mass., Roy Smith has been using cooperative learning (in this book I use the term learning-teams, as some parents and school board members have an aversion to the word *cooperative*) for a number of years. One of his most successful lessons involves simultaneously teaching a variety of reading, writing, speaking and listening skills through carefully

structured pre- and post-writing group discussions. He assigns students to groups of four, ensuring that high-, medium- and low-achieving students (both male and female) are in each group.

### ***Instructional Tasks***

The basic task is to read a story, "The Choice," by W. Young (in *Shadowbox*, a volume in the *Variations* series, New York: Harcourt Brace Jovanovich, 1975), which discusses the experience of a time traveler who goes into the future and returns. The overall learning objectives are for students (1) to write perfect, high quality and thoughtful thesis essays and (2) to ensure that other members of the group also write perfect, high quality and thoughtful compositions. The seven instructional tasks assigned in the two- to four-day unit (depending on the length of the class period) are:

1. The group discusses what should be taken on a time-travel trip into the future, what should be investigated while on the trip and what should be told to others upon one's return. The purposes of the discussion are to ensure that a wide variety of ideas are generated. All members contribute to the discussion, and all members have a conceptual understanding of how to write thesis essays.

2. Each student writes a letter/proposal requesting funding for a time-travel trip into the future. In the proposal students must explain what they will take, what they wish to find out and what they will report on their return.

3. Group members edit each other's letters/proposals. Careful editing is emphasized. Students are responsible for reading two of the compositions written by members of their group. Editing includes giving suggestions as to how each letter/proposal could be improved as a thesis essay and noting any spelling and punctuation errors that need to be corrected.

4. Each student reads the story "The Choice" and makes a tentative interpretation of its meaning. Students are reminded to listen to other interpretations with an open mind.

5. Group members discuss the story and reach a consensus to answers to seven questions about its content: three factual recall, two interpretive, two evaluative. The purposes of this discussion are to generate creative and thoughtful interpretations of the story, to motivate the group members to write high quality and perfect compositions, to ensure that all group members contribute to the discussion and to ensure that all members know the general principles of writing thesis essays.

6. Each student writes a composition taking the position that the decision made by Williams was correct or incorrect, and presenting a convincing rationale as to why his or her position is valid.

7. Group members edit two other members' compositions. Careful editing for spelling, punctuation and the components of thesis essays is emphasized. As they edit, they frequently achieve insights as to how their thesis essays could be improved by comparing how others expressed similar ideas. All revised compositions are handed in with the signatures of the group members who edited them.

### ***Positive Interdependence ("Sink or Swim Together")***

Positive interdependence (a term that means that the assignment is structured so that its success depends not on any one individual but on how well the team members work together) is structured by each group starting with 100 points and subtracting 5 points for every spelling or punctuation error and every failure to include the essential elements of thesis essays. The group is given 20 bonus points if every member clearly articulates an interpretation of the story and supports it with valid reasoning.

I am always uncomfortable with subtracting for mistakes. I would suggest the following modification of this plan: The students could get all their lost points back if the final product had no more than one mistake. This would give them a payoff instead of a loss for very careful editing. This is only a suggestion and is not intended to be critical of the excellent work shown here.

***Individual Accountability***

Individual accountability is ensured by requiring each student to write two thesis essays (the letter/proposal and the composition) and revise them in order to meet the standards of his or her learning team.

***Collaborative Skills***

Four group roles are randomly assigned to the group members:

1. **ENCOURAGER of PARTICIPATION.** In a friendly way encourages all members of the group to participate in the discussion, sharing their ideas and feelings.

2. **PRAISER.** Compliments group members who do their assigned work and contribute to the learning of the group.

3. **SUMMARIZER.** Restates the ideas and feelings expressed in the discussion whenever it is appropriate.

4. **CHECKER.** Makes sure everyone has read and edited two compositions and that everyone understands the general principles of writing thesis essays.

All those who advocate this approach agree that it is vital that these collaborative skills be taught to the whole group by the teacher acting as a manager. The teacher should do this in a lecture and then have whole group discussion to see if they understand what these supportive roles are and how they should use them as they work as a learning-team. Then as the teacher circulates from group to group she should model what these roles are, encourage students to keep using them, praising team members who are performing their assigned role well and explaining to those doing poorly how they might do better.

At first, it may seem cumbersome to insist that students follow these assigned roles, but keep in mind that in the traditional class students do not get this kind of frequent encouragement and attention. The fact that they frequently get this support when they work in learning-

teams because it is an integral component of the model is highly motivating. Once they get used to these essential roles, which they rotate from assignment to assignment, they thrive on them.

### ***Advantages for Teachers***

Roy Smith sees a number of advantages for teachers. First, students develop more positive attitudes toward reading. He notes that in order to enjoy reading, students must have an opportunity to talk about what they have read. Cooperative groups provide a structure for doing so. Second, it is easier for teachers to work with seven groups than with twenty-eight individual students. Finally, cooperative learning cuts off discipline problems before they begin in the classroom. Students are more on task which, from a discipline standpoint, reduces the need for classroom management.

### ***Disadvantages for Teachers***

Roy states that, if it is structured correctly, he does not see any disadvantages to using learning-teams. One potential problem that he is constantly looking for, however, is groupthink—a student “just going along” with the team’s interpretation of the story. If he finds any students doing this, he takes corrective action.

What he is saying is that he has to act as a skilled manager who has a large variety of problem-solving techniques to keep the model on track. It is beyond the scope of this book to detail all the corrective actions that an experienced teacher, such as Roy Smith, would use. As you gain experience, you will develop a whole repertoire of these actions ready for instant use if any group seems to bog down. I would like to point out that these examples all provide a depth of instruction that precludes boredom, and that none of these four teachers mentioned under *disadvantages* that any student was bored. It is equally important to realize how little chance there would be for

any teachers to be bored if their students were working hard at high-level tasks like these.

### **TOM MORTON**

As an eleventh-grade social studies teacher in University Hill School in the Vancouver School District, Tom Morton is interested in how students constructively engage in spirited arguments about controversial issues. As part of a unit on persuasion, he conducts a cooperative learning lesson with two purposes: He wants his students both to learn about World War II and about how to manage their conflicts over ideas, opinions and conclusions constructively. The academic goals of the lesson are many: to learn the background of the Dieppe raid as an important event in Canadian history and to practice how to clarify or frame an issue, how to distinguish fact from value, how to evaluate evidence, how to persuade and how to summarize. The lesson is designed to take three one-hour class periods. He assigns students randomly to groups of four by having the students count off; for example, a class of twenty-eight would count off by seven to form groups of four. He assigns students within each group to subgroups of two by pairing students whose names are first in the alphabet.

Here you see that Tom Morton does not follow the accepted wisdom of those who teach the model in that he selects his learning-teams at random. Most of those who use this model select students so that the team represents a cross-section of high-, low- and mid-range achievers. Reasons for this are to ensure that the good students will be able to help the less able so that all proceed at about the same pace and to ensure that the teams are not so far apart in ability that they perceive it to be unfair. We are genetically so competitive that even though there is no formal competition, this should be kept in mind. Nevertheless, from his experience, at least in this assignment, Tom chose not to do it this way. This is a good example of



how you, as a teacher, may vary from the accepted norm and still do an excellent job. My guess is that this is such an involving assignment that all students, even those who might do poorly on a more routine task, will do well here.

### ***Instructional Tasks***

Early in World War II, after Germany had succeeded in conquering most of continental Europe, the Allied generals decided in the spring of 1942 to launch a large raid of about 5,500 troops, of whom 5,000 were Canadian, to test the enemy defenses. The raid was planned for July fourth against the French port of Dieppe. Unfortunately, bad weather forced the cancellation of the raid. On July 15, 1942, the generals had a meeting to decide whether or not the raid would be conducted in early August. The instructional task for the students was to gather as much information as they could about the situation, reach a consensus as to whether or not the raid should have been conducted and present a reasoned, factual and persuasive rationale as to why their decision is correct.

Briefly the procedure is as follows: During the first class period, the groups are randomly divided into two-person advocacy teams with one team being given the "proponent of the raid" position and the other team given the "opponent of the raid" position. Both advocacy teams are given readings and information supporting their assigned positions. They are then given time to read and discuss the material with their partners and plan how best to advocate their assigned position so that (a) they learn the information and perspective within the articles and technical reports, (b) the opposing team is convinced of the soundness of the team's position and (c) the members of the opposing team learn the material contained within the readings.

During the second class period, the two teams present their positions and then engage in a general discussion in which they advocate their position, rebut the opposing

position and seek to persuade the opposing team to adopt the other one's position and reasoning. Students are instructed to take notes and clarify anything they do not fully understand when the opposing pair presents and advocates its position.

In the third hour, the student pairs spend half the period reversing perspectives by arguing for the opposing position. The group of four then reaches a consensus about the issue and prepares a group report detailing their decision and the supporting information and rationale.

### ***Positive Interdependence ("Sink or Swim Together")***

Each *pair* prepared a joint presentation and advocacy of their position. The oral participation of both individuals was required. Each *group* arrived at a consensus as to whether the Dieppe raid should or should not have been conducted, and submitted *one* written report detailing its conclusion and presenting a reasoned and convincing rationale as to why their decision was valid. The group report was evaluated on the basis of the quality of writing, the evaluation of opinion and evidence and the oral presentation of the report to the class.

### ***Individual Accountability***

Every member of the group must be ready to present orally the group's position with supporting evidence to the entire class. One member of each group will be randomly selected to do so.

### ***Collaborative Skills***

Tom spends time concretely teaching students how to criticize ideas (not people), listen effectively, take opposing perspectives and encourage the oral participation of all group members.

### ***Advantages for Students***

Tom sees many advantages for students: the degree of high-level reasoning students engage in, the increased

motivation to learn about the subject area, the higher levels of achievement, the thoughtful weighing of alternatives to make a difficult decision and the greater retention of the material learned. At the same time, students are learning how to resolve conflicts constructively and are mastering the basic conflict skills needed to do so. And as they do, they enjoy learning more.

### — *Advantages for Teachers*

The major advantages for teachers are that it produces higher-level student learning and promotes the development of important social skills.

### — *Disadvantages for Teachers*

Tom notes that if there are any disadvantages to the cooperative-controversy procedure, it is that it is a significantly different way to teach, and therefore it takes a lot of effort for the teacher to break old teaching habits and utilize the full potential of the cooperative-controversy procedures. Teachers will need to conduct several controversies in order to master the procedure and even teach a lesson to the whole class on persuasion as a setting for the controversy raised by this assignment. In an assignment like this, it may be difficult for teachers to take both perspectives in viewing the decision to be made. If this is the case, helping students to see both sides can be a problem. Finally, students tend to want more information about World War II and the Dieppe decision and push the teacher to provide it. The unit tends to grow and expand. Students like the controversy process and demand to have it used with some frequency.

There is little for me to add to what Tom Morton presents. My only comment is that most of what he calls disadvantages, I would view as advantages, especially his students wanting to know more about as important an event as World War II. Again, I cannot picture any students saying that they are bored with this assignment. I could even see an addition to the assignment: Ask the class

to contact a local veterans' organization to see if there are any survivors of this tragic raid who could come in and talk from their actual experience. It would be interesting to compare the point of view of the actual participant about the value of the raid with that developed by the students.

### **TOM EGAN**

Tom Egan teaches the seventh and eighth grades at Park Junior High School in the St. Louis Park School District. One of his favorite lessons is an adaptation of *Geography Search* (New York: McGraw-Hill, 1982), a computer problem-solving simulation on the fundamentals of map reading and navigation. He assigns students to groups of four, ensuring that high-, medium- and low-achieving students (both male and female) are in each group.

#### ***Instructional Tasks***

The basic task is to work as a crew to sail an ancient ship to the New World and back in search for gold, using the sun, stars, ocean depth, climate and trade winds to navigate. The basic objectives for the unit are to teach higher-level problem-solving skills, to teach map reading and navigational skills, to improve students' skills in making decisions by consensus and collaborating with others and to use a computer simulation based on a real life (and historical) situation to maximize student interest and motivation. Students were informed that (a) they would individually complete daily worksheets and take a final test, (b) their unit grade would be based on the average of the scores of their group members on the daily worksheets and the final exam and (c) they would be awarded bonus points on the basis of how much gold the total class accumulated. The groups initially had to decide whether to go ashore, follow the coast or sail their ships. The direction the ship could sail depended on the direction of the wind.

Mostly sailing rather than going ashore cost the groups in terms of supplies and certain hazards that exist such as storms and pirates. Students had to keep track of wind direction, wind speed, their latitude and longitude, the depth of the water, food provisions and the temperature and rainfall. Group members were assigned specific roles. Each role had a task responsibility and a group maintenance responsibility. The roles were rotated daily among group members so that each student fulfilled each role at least once. The roles were:

**1. CAPTAIN**

a. Task responsibilities are to record ocean depth and the visual (what could be seen from the ship) report from the computer screen and to make sure that no computer key is punched until the group comes to a consensus on their sailing decisions.

b. Maintenance responsibility is to be a *checker* who ensures that all group members understand and agree with the sailing decisions made.

**2. NAVIGATOR**

a. Task responsibilities are to record the information from the computer screen on the sun's shadow and the position of the stars and then compute the ship's longitude and latitude.

b. Maintenance responsibility is to be an *encourager* who ensures that all group members share ideas and that no put-downs occur.

**3. METEOROLOGIST**

a. Task responsibilities are to record from the computer screen wind direction and speed, weather and temperature, and to ensure that the correct wind direction is typed into the computer.

b. Maintenance responsibility is to be a *summarizer* who periodically summarizes the group's progress, decisions and rationale for the decisions.

#### 4. QUARTERMASTER

a. Task responsibilities are to record from the computer screen the provision report and to determine how many days of sailing are possible on the current provisions.

b. Maintenance responsibility is to be a *praiser* who compliments group members who do their assigned work and contribute to the learning of groupmates.

The unit lasted five instructional periods. Each day the group recorded their position on a navigational map. Because of weather conditions, students might need to start over, they could starve at sea and they could be attacked by pirates. Each class session, students would plan what to do, go to the computer and enter their decisions, record the results of their decision and the additional information the computer would give (such as wind direction and speed), and then the students would leave the computer to plan their next series of actions. At the end of each period students would individually complete a daily worksheet. At the end of the five periods the students took a final examination of their knowledge of the content of the simulation.

#### *Positive Interdependence ("Sink or Swim Together")*

Positive interdependence was structured within learning groups through (1) basing students' grades on the average of the group members' worksheet and final test scores (this ensured that students would be concerned about ensuring that all group members mastered the information being taught in the unit), (2) giving each student a structured role that had to be performed if the group was to complete the task successfully and (3) having the information the students needed to make effective decisions appearing on the screen so briefly that no one student could copy all of it down. Positive interdependence among learning groups was structured by giving bonus points for the overall performance of the class. This ensured that groups would help each other learn.

### ***Individual Accountability***

Individual accountability was structured by (1) having each student complete the daily worksheets and take the final exam individually and (2) assigning each student an individual role that had to be performed within the group.

### ***Collaborative Skills***

The specific collaborative skills taught were the maintenance responsibilities of each role. The processing of how well the group was functioning was aimed at increasing students' mastery of the basic collaborative skills needed within this lesson.

### ***Advantages for Students and Teachers***

The oral interaction among students promotes considerable higher-level reasoning and learning. Students learn leadership and social skills that are important for most careers. Teachers will often be surprised by the level of creativity generated by the cooperative interaction among students. The use of cooperative groups with computers is a natural partnership that enhances the effectiveness of both.

### ***Disadvantages for Students and Teachers***

It is hard to think of any disadvantages. The fact that computers are involved means that hardware or software problems could arise that are frustrating to both the students and teacher. The computer becomes seductive—students get so involved with the computer that they ignore the supplementary written materials. Absences create problems because all students have to be present in order for the information to be obtained from the computer and in order for the group to make reasonable decisions. The teacher needs to monitor the groups closely in order to make sure that students fulfill both the task and maintenance aspects of their roles.

With the increasing availability of computers and educational software, more and more students will have ac-

cess to these machines. No one would question that they are an integral part of every aspect of our lives, and students who have this access have an educational advantage over those who do not. What Tom Egan does that is probably the best way to use these machines educationally is to assign students to use them in learning-teams. More students can gain access to the limited numbers of machines, and as they work together, students learn to depend on each other as well as the machine. As he says, "The machines are very seductive." The message that they give is that you can relax and depend on "me." Working in teams to decide what to put into the computer reduces this effect and gives the students insight into the fact that these are only machines and "we," not "they," control what we do with them.

### **HILDY SHANK**

Hildy Shank teaches fifth grade at Meadowbrook School in Hopkins School District in Minnesota. A central part of her math class is higher-level problem solving. One of her favorite units is adapted from *S.P.A.C.E.S.* (Palo Alto, Calif.: Dale Seymour Publications, 1982), a book of math lessons specifically aimed at making math and science more interesting to female students. Hildy assigns students to groups of four, ensuring that one high-, two medium- and one low-achieving student are in each group.

### ***Instructional Tasks***

The basic task is to plan a city park. The planning is conducted ~~over a period of three class periods~~, all one week apart.

The first session, students are given the task of building a playground for the city of Golden Valley, Minnesota. The students are given some basic information about Golden Valley, an adjoining town. They are told the following: Golden Valley has decided to develop some of its



land as an environmental park. Your engineering team has been asked to submit a proposal for the development of this land. The people of the town will do the work. Your team will plan what materials and equipment will be needed. The total cost of these materials and equipment must be \$5,000 or less. Consider the following criteria when developing your plan:

**1. VERSATILITY**

- a. Is the park suitable for meeting the needs of the elderly, the young and the in-between?
- b. Can the park be used at night as well as during the day?
- c. Is the park useful in all seasons?
- d. Is there a wide range of activities available within the park?

**2. SAFETY**

- a. How safe is the design for young and old users?
- b. Would people of all ages enjoy the park?

**3. AESTHETICS**

- a. Is the design pleasing?
- b. Would people of all ages enjoy the park?

**4. COST EFFECTIVENESS**

- a. Was the money well spent?
- b. Is energy used efficiently in the park?

**5. INNOVATION**

- a. Is the design unusual?
- b. Are materials used in new and interesting ways?

Each group is given a copy of the task and a copy of a worksheet listing a variety of materials and equipment and their cost. Students are to plan the design of the park, decide what they will have in the park and describe how it meets the above criteria. All decisions must be made by consensus. Each group member is assigned one of the

following roles according to the individual student's strengths and abilities: accountant (does the math computations), architect (does the layout of the park on a piece of tagboard), encourager (ensures that every group member is participating) and manager (reads the instructions for the activity, reports the group's plan and its cost to the whole class at the end of the period and leads a group discussion on what group members did to work effectively with each other and how they improve in working together). At the end of the session each group puts its work in a folder which is placed on the teacher's desk.

One week later, the second session is conducted. The groups are given the task of taking their ideas and laying them out on a sixteen- by twenty-inch piece of tagboard. They are told somewhere in the park to include five trees, one hill, an outcropping of rocks and one stream. The group decides where each natural feature goes. Group members keep the same roles. During the lesson the teacher observes the group and works with groups that are having trouble making decisions. At the end of the session the manager reports the plan to the class, the group processes how well they worked together and the group's work is placed on the teacher's desk. The groups that have really good ideas are highlighted in the reporting to the class.

The third class session is conducted one week later. The groups are given the tasks of (1) finishing the plans for their park, (2) writing a report explaining why their park has the design it has and (3) writing a commercial to sell their park to the rest of the class. The architect becomes the recorder for making their group report and the other roles remain the same. The second half of the session each group orally presents their commercial to the entire class. All group members have to participate in the commercial. After all commercials are presented, the students in the class vote (using secret ballots) on which park is best and why.

### ***Positive Interdependence ("Sink or Swim Together")***

Positive interdependence is structured within the learning groups by requiring one park plan from the group, structuring a division of labor through the assigned roles and having each member's success dependent on the overall quality of their park plan and commercial.

### ***Individual Accountability***

Individual accountability is assured by assigning each group member a role that is essential to the group's work. In order to complete a park plan every group member has to fulfill his or her responsibility. The processing of how well the group is functioning increases individual accountability as it provides a procedure for students to give each other feedback as to how effectively they are working within the group.

### ***Collaborative Skills***

The collaborative skills taught within this unit were the specific roles assigned to students. The processing of how well the group was functioning ensured that students would increase their collaborative skills as a result of participating in the unit.

### ***Advantages for Students and Teachers***

Hildy sees a number of advantages for students and teachers. First, students helping students results in greater academic and social skills. Second, the lesson uses a real life situation to teach higher-level thinking skills. The reality of the situation adds to the excitement and interest of students. Third, producing a group plan for the park results in a great deal of pride and feelings of success by students. Students typically feel as if they have fully realized their competencies to produce a quality park plan. The success they feel and the pride they take in their park

plans are real pluses for the teacher. Finally, the processing of how well the group is functioning enables students to assess their own and their groupmates' effectiveness in working collaboratively. Hildy believes that students need the experience of analyzing how well they are working together, so that they can plan how to improve, put their plans into action and feel success and pride when the group functions better.

### ***Disadvantages for Teachers***

Hildy could think of only two possible disadvantages of using cooperative learning. The first was noise level. Students get excited in this lesson. Their excitement is all task related, but if noise bothers the teacher, it will be a negative. Second, the processing of how well the group is functioning requires the teacher to build a high level of trust in the class. The teacher must be willing to give students an honest assessment of how effectively they are collaborating, and the teacher must be willing to promote the same degree of honesty among students when they give each other feedback. Third, an important part of the teacher's role is continually to turn the responsibility of how to plan to collaborate more effectively back to the group. Some teachers may find it difficult to let the students derive their own plans when it is so easy for the teacher to point out ways they could collaborate more effectively. It is essential for students to take ownership for their work and their group.

### ***Extension***

A footnote to this lesson is that after hearing about it, the PTA has proposed funds for playground development at Meadowbrook School. Each learning group is to make a plan as to how the playground should function and therefore what new equipment is needed and where it should be placed. The groups are then expected to present their plans to the PTA Playground Committee, which consists

of one PTA member. The Committee will then possibly select one of the plans.

One of the major differences between lessons like these and what can be done in the traditional classroom is that in at least three of the four examples my guess is that the students will remember this lesson all of their lives. Even as adults, the children will never pass that playground without recalling the assignment that led to them to help lay out its plan. Try to recall how many school assignments you remember. If you are like me, what you can recall about school rarely has to do with anything constructive that occurred in the classroom. Even though this book is addressed to the secondary school teacher, I included this example to show how well this model works in elementary school. There is also no reason why this same assignment would not be effective with older students.

Visit a local junior or senior high, walk through the corridors and peek into some classrooms. What you will see are students involved in a variety of activities most of which have little to do with what the teacher is doing. I have conducted my own poll of teachers and asked how many of their students are actively involved when they “teach” in the traditional way and the answer is always, “About eight or nine.” It doesn’t seem to matter how many are in the class; these are all that are active. There may be more learning (up to half as I claimed earlier) but still many less than are involved when students are working together in learning-teams, where in most cases they are all actively involved.

As I read over these examples, I was struck with how well these lessons carried out three basic requirements for good education—involvement, relevance and thinking—that were the thrust of my 1969 education book, *Schools Without Failure*. In all cases, students were deeply *involved* with each other, they were *thinking* throughout and what they did they believed had *relevance* to their

lives. While learning-teams give strong support to these education basics, they also add a fourth requirement: Knowledge is power, which is the thrust of this book. Since the learning-teams have a great deal of control over the learning, it becomes obvious to any student on any team that, if he works, he can gain some power both as a team member and for himself. The traditional class fails to get many students involved because few students believe that they have access to power in it.

In all these examples, the teachers acted as modern managers in that they structured the assignment so that it made good sense for students to work hard. They coached, facilitated, answered questions and provided materials as needed, but *they did not present the material as they do in traditional classes in the hope that students would learn enough to pass a test.* They understood that as much as the actual assignment is important, the value of letting the students do the work is equally or even more important. In learning-teams students have to figure out both how to get along with each other and how to complete a cooperative task on time. This is much more relevant to what they will have to do later, which is to get along at work and in their own families, than what goes on in traditional classes where they work alone.

These assignments seem to me to be the peak of what can be done educationally in a school. If, as you look at your students, you find it hard to believe that they could carry out such complex tasks, keep in mind that these were not done by honor students or any other specially selected tracks. They were done by students no more capable than yours. What is so different is that these students have been involved over a period of time in learning-teams with teachers who have made a considerable effort to learn to use this model. It is also my guess that they received support and encouragement from administrators who also had made the effort to learn what this model can offer.

As these examples demonstrate, students are willing to work hard when they are taught in ways that satisfy their needs. Control theory explains why the learning-team model is an effective way to do this.